

CLAIMS

1. A method for evaluating crystal defects of a silicon wafer comprising: etching a surface of the silicon wafer by immersing the wafer in an etching solution; and observing etch pits formed on the etched surface of the wafer, wherein the silicon wafer of which crystal defects are evaluated has low electrical resistivity of $1\ \Omega \cdot \text{cm}$ or less, and the etching solution is a mixture of hydrofluoric acid, nitric acid, acetic acid and water further including iodine or iodide, in which a volume ratio of nitric acid in the etching solution is the largest among volume ratios of hydrofluoric acid, nitric acid, acetic acid and water, and the etching solution is adjusted to have an etching rate of 100 nm/min or less for the silicon wafer.
2. The method for evaluating crystal defects of a silicon wafer according to Claim 1, wherein the etching solution includes hydrofluoric acid : nitric acid : acetic acid : water in a volume ratio of 1 : 13-17 : 4-8 : 4-8.
3. The method for evaluating crystal defects of

a silicon wafer according to Claim 1 or Claim 2, wherein the etching solution includes iodine or iodide in a range from 0.01 g to 0.09 g per 1 liter of total liquid volume of the etching solution.

4. The method for evaluating crystal defects of a silicon wafer according to any one of Claims 1 - 3, wherein a removal amount of the surface of the silicon wafer by etching is 50 nm or more.